



## HEALTH CHALLENGE BRIEF

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Addressing challenges affecting the health and wellbeing of communities in Southern Africa.



# FOR THIS CHALLENGE WE ARE ASKING THIS QUESTION



How might we enable fair and accessible  
Healthcare across the southern African region?



**LOWER THE COST  
OF HEALTHY EATING TO ADDRESS  
MALNUTRITION**



**IMPROVING HEALTH  
WORKFORCE THROUGH eHEALTH**



**ENABLING ACCESS  
TO MEDICAL CARE**

eHealth refers to the use of Information and Communications Technologies (ICTs) in healthcare to meet the needs of citizens, patients, healthcare professionals, healthcare providers, as well as policy makers. eHealth includes many sub-categories of digital health which includes: Electronic Health Records (EHR), Electronic Medical Records (EMR), Telehealth and telemedicine, Health IT systems, Consumer health IT data, Virtual healthcare, and Mobile health (mHealth).



\*A solution solving for more than one of these areas is applicable,  
if the solution is not digitally based, please motivate its impact and implementation.

# WHY FOCUS ON HEALTH



Health yields economic dividends: Healthy people are more productive, and healthy infants and children can develop better and become productive adults – World Health Organization



## THE CHALLENGE

Africa has a young and rapidly increasing population which is projected to double in size from 1,2 billion to 2,4 billion between 2017 and 2050. This will translate into an increased workforce which can contribute to economic growth in the region through increased productivity and technology diffusion. However, for this to transpire, there needs to be a healthy population. Africa suffers from a constrained health sector, burdened by communicable and non-communicable diseases. Majority of deaths that have occurred in Africa resulted from HIV/AIDS (19%), lower respiratory infection (10%), and Malaria (8%). (WHO, 2019) Furthermore, 50% of the deaths of children under five are attributed to underlying malnutrition- which is one of Africa's most significant health and social challenge. (African Union, 2015)

Effective public health interventions could prevent most of the deaths that transpire; however, scarce public health resources act as a hindrance. The scarcity of resources presents efficacy problems in the training of healthcare practitioners, maintenance of infrastructure, and efficient supply chain management. This is further compounded by inadequate food production, food shortages, famine, high rates of child and maternal malnutrition and insufficient access to clean water.

Healthcare systems in Africa are fragile and underdeveloped and require creative and innovative solutions to produce quality healthcare services for all. Good health is one of the Sustainable Development Goals (SDGs), adopted by the United Nation Members States in 2015. The goals are interconnected and address the global challenges we face.

World Health Organization. 2019. Nutrition . Accessed January 19, 2019. <https://www.afro.who.int/health-topics/nutrition>.



# LOWERING THE COST OF HEALTHY EATING



How do we provide sustainable nutritious food at lower costs to minimise malnutrition for the disadvantaged?

What we are looking for:

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- Use low cost technology that can be accessed from anywhere and is user friendly ; that enables access to nutritious food

3

- Micro gardens or central farming systems for communities to provide access to low cost, nutritious food

- Technology mechanisms to lower the cost of nutritious food for low income families

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- Mobile solutions that encourage a healthy lifestyle- smartphones or wearable technology

- Technology that educates communities on the nutritional value of food



**50% of the deaths of children under five in Africa are attributed to underlying malnutrition- Malnutrition includes undernutrition and nutritional deficiencies. Poverty is a the core of nutritional deficiencies in Africa, with more than half of Sub Saharan Africa (SSA) living below the poverty line of \$1 US dollar a day.**

\*Not an exhaustive list. Should your solution lower the cost of health eating, it is applicable to this challenge.



# EMPOWERING THE HEALTH WORKFORCE THROUGH eHEALTH



What technologies can be implemented to alleviate some of the challenges faced by the healthcare workforce?

What we are looking for:

- 3
- 4
- 10

- Support structures to enable the health workforce to conduct work confidently and effectively
- Technology that boost efficiency and well-being of medical practitioners
- Mechanisms that enable the identification and communication of constraints the workforce face in the healthcare space
- Mobile solutions that encourage a healthy lifestyle for medical practitioners - smartphones or wearable technology
- Technology that can facilitate interactions between healthcare professionals and patients who cannot reach medical facilities
- Using low cost technology that can be accessed from anywhere and is user friendly

Smartphone penetration has increased from 17% in 2014 to 39% in 2018 (this is a percentage increase of 129.4% over the last five years).

This number is expected to grow to 66% by 2025. (GMSA, 2019)



\*Not an exhaustive list. Should your solution empower the health workforce, it is applicable to this challenge.



# ENABLING ACCESS TO MEDICAL CARE



How do we enable easy access of medical products and vaccines through ehealth?

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What we are looking for:

- Mobile solutions that can aid in facilitating access to basic services in healthcare
- Technology that can assist in diagnosing health related issues
- Digital solutions that can assist disseminate medical products efficiently and effectively
- Educational strategies highlighting the benefits of vaccines and other medical products (eLearning)
- Empowering remote communities with medical knowledge to decrease their frequent need for medical attention

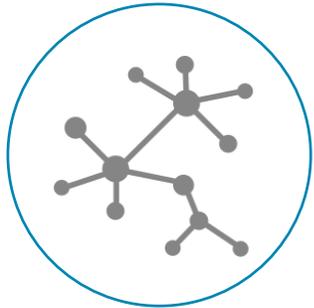


**Sub-Saharan Africa has fewer than 10 doctors per 100 000 people and 14 countries do not have a radiologist. This is where ehealth can play a critical role in providing quality services delivery with scarce resources through avenues such as telemedicine.**

\*Not an exhaustive list. Should your solution enable access to medical care, it is applicable to this challenge.

\*No new medical products that require clinical trials

# END GOALS FOR THIS CHALLENGE



## ENABLE COLLABORATION

We aim to enable collaboration between start-ups, students, organisations, industry experts, and supporting ecosystems that will boost capacity, knowledge and skill to ensure the success of finalists.



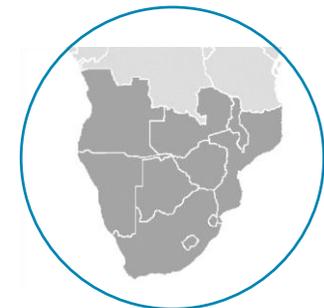
## EMPOWER ENTREPRENEURS

Through this challenge, entrepreneurs and businesses who are capable of solving the issues will gain access to market, valuable business training and be introduced to relevant players in their fields.



## SOLVE RELEVANT ISSUES

We want to empower solution providers to solve the pressing issues of today, by creating sustainable businesses that they can use for greater quality of life.



## SECURE SOUTHERN AFRICA'S FUTURE

By solving relevant issues now, we can ensure the future of the selected sectors for the SADC region, by ensuring sustainable and scalable solutions are selected and implemented.

# WHAT IS IN IT FOR YOU



## NETWORK AND MARKET ACCESS

The partners involved in this program are heavily involved in the sectors at play. Winners of the program will have the opportunities to be introduced to a range of support networks, as well as potential investors and market accessors, to take their solution to the next level.



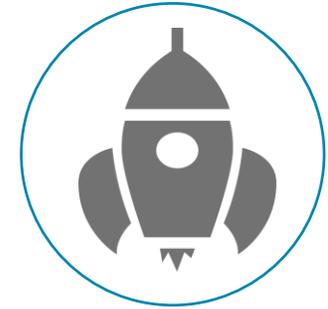
## ENTREPRENEURIAL TRAINING

A 3-day entrepreneurial training workshop will take place with the selected finalists. This will take you through important business basics to get your submission to the next level, and to build your overall business skills.



## 3 MONTH INCUBATION

The winners of the challenges selected will be incubated at BITRI in Gaborone, with additional business skills training from Debswana incubation program. This incubation is also tailored to your phase of the startup lifecycle, and an online version is available for finalists not based in Gaborone.



## ACCELERATOR PROGRAMMES

After the incubation period, should the winners feel they need more support, they will have first access to the Tech Tribe Accelerator – an online acceleration program tailored to their start-up needs.

# WHAT WE ARE LOOKING FOR



A potential solution to solve these issues that are at ANY of the following stages:



### Ideating

Entrepreneurial ambition and/or potential scalable product or service idea for a big enough target market. Initial idea on how it would create value. One person or a vague team; no confirmed commitment or no right balance of skills in the team structure yet.

### Concepting

Defining mission and vision with initial strategy and key milestones for next few years on how to get there. Two or three entrepreneurial core co-founders with complementary skills and ownership plan. Maybe additional team members for specific roles also with ownership.

### Committing

Committed, skills balanced co-founding team with shared vision, values and attitude. Able to develop the initial product or service version, with committed resources, or already have initial product or service in place. Co-founders shareholder agreement (SHA) signed, including milestones, with shareholders time & money commitments, for next three years with proper vesting terms.

### Validating

Iterating and testing assumptions for validated solution to demonstrate initial user growth and/or revenue. Initial Key Performance Indicators (KPIs) identified. Can start to attract additional resources (money or work equity) via investments or loans for equity, interest or revenue share from future revenues.

### Scaling

Focus on KPI based measurable growth in users, customers and revenues and/or market traction & market share in a big or fast growing target market. Can and want to grow fast. Consider or have attracted significant funding or would be able to do so if wanted. Hiring, improving quality and implementing processes

### Establishing

Achieved great growth, that can be expected to continue. Easily attract financial and people resources. Depending on vision, mission and commitments, will continue to grow and often tries to culturally continue "like a startup". Founders and/or investors make exit(s) or continue with the company.

Startup Development Phases - From idea to business and team to organization.

Version 3.0 - [www.startupcommons.org](http://www.startupcommons.org)



Your solution will be judged within parameters according to where your idea is within the start-up development stages. The training and incubation will then be tailored to these outcomes.

Should you be a large corporate entering, we will assess the idea as a 'start-up', adjust the parameters of your submission based on what the judges think is sustainable for your particular business.

# CRITERIA FOR JUDGING



CRITERIA	DESCRIPTION	1	2	3	4	5
Solution contributes to enabling fair and accessible healthcare – 'fair healthcare' by solving for the challenge	Solution is relevant to at least one of the three chosen problem areas, and ultimately works towards enabling fair healthcare. Challenge/s solved for must be stipulated in submission	No value to fair healthcare	Limited value add to fair healthcare	Fair value add to fair healthcare	Excellent value add to fair healthcare	Can revolutionise fair healthcare
Contribution to Sustainable Development Goals (SDGs)	Does the solution satisfy at least one SDG goal based on the UN's outcomes. Should it be a different goal to what is stipulated in the brief, it must be motivated.	No relation to SDG goals	Limited contribution to achieving SDG goals	Fair contribution to achieving the SDG goals	Can greatly contribute to achieving the SDG goals	Can fulfil an SDG in a specific area/ community
Ease and sustainability of implementation, with all possible impacts considered	An implementation strategy must be included, with sustainability and ease of the strategy noted. All potential positive and negative impacts of implementation must also be considered	Not sustainable AND highly difficult to implement	Not sustainable OR not highly difficult to implement	Potential to be sustainable, with some potential impacts	Easily and sustainably implementable, with minimal negative impacts	Most sustainable, with only positive impacts
Feasibility of solution	The solution is physically possible within it's environment, with no additional R&D required to ensure the success of implementation	Not feasible	Has potential to be feasible	Feasible, with fair obstacles	Feasible, with minimal potential obstacles	Very feasible
Viability of solution	The solution can be used in a business model and can be profitable.	Not viable (clear financial loss)	Has potential to be viable	Can be viable with additional funding	Solution is financially sustainable	Solution has potential to be worth more than 1million USD
Team capability and intent	The team is passionate and dedicated to the solution; and can solve problems effectively	No passion or want to solve problems	Team has little interest/ capacity	Team has passion, but other priorities	Team has passion and few other priorities	Team is fully dedicated to solution

# TIMELINE

## WHAT TO EXPECT



29 March

Submissions Close

28 April – 15 May

3-day entrepreneurial training  
(Gaborone, Botswana, or  
Johannesburg, South Africa)

17 May to  
31 July 2020

3-month capacity building incubation

Post feedback  
discussions

Accelerator program  
OR  
Investor introduction

- All announcements will be made with enough time to accommodate for planning.
- Please note that for this challenge, no travel costs will be covered. Should you not be able to attend the training in person, you can access the material and exercises through our online platform.
- Should you have any questions or queries, please do not hesitate to contact us at [info@oiregionalconnect.com](mailto:info@oiregionalconnect.com).

# SUBMISSION INFORMATION



Send your submission to:

[healthsubmissions@oiregionalconnect.com](mailto:healthsubmissions@oiregionalconnect.com)

BEFORE 29 MARCH 2020

A template of a submission is available on:

[www.oiregionalconnect.com](http://www.oiregionalconnect.com)

For exact instructions of information needed to be submitted.

For any questions/ queries, please email

[alana@oiregionalconnect.com](mailto:alana@oiregionalconnect.com)

# SUBMISSION CHECKLIST



- Submissions must be completed with the template found on the website – other formats will not be accepted. Should you not be able to download the template, email [info@oiregionalconnect.com](mailto:info@oiregionalconnect.com) and we will send a template to you in format of your choice.
- Any additional documents/ materials must be uploaded in pdf format
- Final submission date 29 MARCH – nothing will be accepted afterwards
- Check if your submission matches judging criteria. There will be a chance for you to score your submission yourself with the criteria given in the brief
- Should you want to motivate your submission further, write a paragraph to state the additional positive impacts your project can have on Southern Africa
- If you have any questions, do ask.
- ENJOY the submission! 😊

# ADDITIONAL RESOURCES TO UNDERSTAND THE CONTEXT



## BEGINNER BUSINESS TOOLS:

### A. The Business Model Canvas

All the building blocks of your idea on one page – it will help you assess what key parts are missing to make your solution a success

<https://www.businessmodelsinc.com/about-bmi/tools/business-model-canvas/>

### B. THE DVF Framework

A tool to help you find your ‘innovation sweet spot’ – it will lower your risks when opening your business.

<https://medium.com/innovation-sweet-spot/desirability-feasibility-viability-the-sweet-spot-for-innovation-d7946de2183c>

## ADDITIONAL RESOURCES:

### Lower the Cost of Healthy Eating

[https://www.who.int/nutrition/topics/African\\_Nutritional\\_strategy.pdf](https://www.who.int/nutrition/topics/African_Nutritional_strategy.pdf).

<https://www.afro.who.int/health-topics/nutrition>.

<https://www.unscn.org/layout/modules/resources/files/scnnews15.pdf>

### Improving Health Workforce through eHealth

<https://ieeexplore.ieee.org/abstract/document/1174373>.

### Enabling Access to Medical Care

<https://www.appsafrica.com/innovative-e-health-solutions-improving-healthcare-in-africa/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5375908/>

# DISCLAIMER

## INTELLECTUAL PROPERTY



The intention of this challenge is to identify promising social and technological innovations that could be implemented in the Southern African region.

It is important that no confidential intellectual property or information is disclosed through this process. This may include pre-existing software, processes, systems or market research that is not publicly available.

By submitting a response, you represent that your response does not, and will not be deemed to, contain any confidential information of any kind whatsoever. RIIS, SAIS and its project partners will not be held liable for the loss of any intellectual property.

In the event that your solution is selected, if required, a partner agreement will be signed to protect intellectual property.